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IMAGES IN CARDIOLOGY

Dizziness and pre-syncope – an unusual clinical presentation of a spontaneous coronary artery dissection as revealed by OCT

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A 52-year-old woman was admitted to our hospital with a 2-day history of nausea and dizziness and a subsequent pre-syncope. Because of a known bipolar disorder an emergency-psychiatric evaluation was performed and an attempted suicide as suggested by relatives was considered unlikely. Subsequently an increased high sensitive troponin T was observed (0.101 µg/l) and coronary angiography was performed.

Coronary angiography (CAG) revealed a highly variable degree of stenosis of the middle right coronary artery (RCA, Panel **A and B**, arrows), that was unresponsive to intracoronary nitrate administration. Notably, when there was a high degree of stenosis cardiac arrhythmias, in particular sinus bradycardia and AV-block II were observed. Subsequent intracoronary optical coherence tomography (OCT) readily disclosed a spontaneous coronary artery dissection (SCAD) with haematoma formation in the false lumen (Panel **D and E**) and a visible intimal tear (Panel **D**, arrow). The SCAD was successfully sealed by stent implantation and control CAG revealed TIMI 3 flow and a patent stent without distal propagation of the dissection (Panel **C and F**). The patient no longer had symptoms of dizziness, and it was clearly established that the SCAD rather than a psychiatric disorder was responsible for the symptoms of the patient.

FL = false lumen, ST = stent, asterisk = OCT catheter.

The * indicates the optical coherence tomography catheter

